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XXIV.—*Field-Notes on the Birds of Chili.* By AMBROSE A. LANE. *With an Introduction and Remarks by P. L. SCLATER**.

[Concluded from p. 195.]

89. COLUMBA ARAUCANA, Less.

Columba araucana, Salvad. B. M. C. xxi. p. 296.

(Calle-calle.)

I did not see much of this species in Central Chili, though I observed it once in a wooded and secluded glade on the hills near Hospital, where I was told a pair nested. The birds were said to come in flocks there in the cold season. In the south I found them plentiful, especially about Valdivia and Rio Bueno. In Arauco they are fairly numerous, but not so much so as in the former places. They probably extend far south.

These Pigeons nest at Rio Bueno about December. The nest is a loose structure of sticks, like that of the Queest; and one I got was in the fork of a tree about 15 feet high. Their cooing was a deep booming sound.

They are generally known as the "Torcaza."

* [The localities given after the names of the species in brackets are those of Mr. Lane's specimens, which are now in the British Museum.—P. L. S.]

The iris of this Pigeon is a double ring, the outer section being cadmium-yellow, and the inner orpiment-orange. The bare skin round the eye is Indian purple, marked with a delicate network of pomegranate-purple. The tarsi and feet are of a brilliant poppy-red, the bill and claws black.

90. *ZENAIDA MACULATA* (Vieill.).

Zenaida auriculata, Salvad. B. M. C. xxi. p. 384.

(Hacienda Mausel, Rio Pilmaiguen, and Rio Bueno.)

This Dove is very plentiful throughout Central Chili. I saw only a few near Concepcion on going south in June (1890), when it was mid-winter there, and further south I found it only occurred as a summer visitant.

It arrived at Maquegua (as a summer visitant) about the end of August. On going to Valdivia in September I did not find it there, nor in any other locality I visited until I got to Rio Bueno, where it was plentiful on the banks of the rivers, on the margins and pebbly beaches of which it constantly appeared to be feeding.

In Central Chili it breeds from November to December, and at Rio Bueno from Christmas till March.

The nests are like that of the European Turtle-Dove; those I found at Rio Bueno being usually placed in a thick bush or the fork of a tree overhanging or standing in water.

I got a young bird to rear in January, 1891, at Rio Bueno: we took it from a nest in a "quila" whilst going along the Rio Conta in a boat; but soon after we were shipwrecked on a rapid, and all my specimens, and most of my clothes, were swept away. I subsequently got a pair from another nest, but they were too young and I could not get them to thrive; they died in consequence after I had had them a week.

91. *METRIOPELIA MELANOPTERA* (Mol.).

Metriopelia melanoptera, Salvad. B. M. C. xxi. p. 497.

(Lalcalhuay, Tarapacá.)

This Dove occurs at Huasco, Sacaya, and other localities in Tarapacá; I only observed it between 8,000 and 12,000 feet. On first going to Huasco in January I noticed

one or two flocks of upwards of a dozen on the sierras, but subsequently I met with only odd pairs, and they were scarce.

[Mr. Lane also procured examples of *M. aymara* at Huasco. See B. M. C. xxi. p. 500.—P. L. S.]

92. *CHAMÆPELIA CRUZIANA* (d'Orb.).

Chamæpelia cruziana, Salvad. B. M. C. xxi. p. 483.

(Pica.)

This handsome little Dove is to be seen everywhere at Pica, in gardens, streets, corrals, &c. It is known as the "Palomita" or "Tortolita." I found a nest on top of a post supporting the wall of a shed in a garden; as the whole structure was a mere wicker-work arrangement, intended only as a shelter from the sun, the birds found no difficulty of passage through the interstices of the roof. The nest was a mere platform of stalks or grass, and contained two newly hatched young, so I did not disturb it. I believe that this Dove nests more commonly in the forks of trees or shrubs.

93. *RALLUS SANGUINOLENTUS*, Sw.

Rallus rhytirhynchus, James, New List, p. 10.

Limnopardalus sanguinolentus, Sharpe, B. M. C. xxvii. p. 30.

This bird occurs through Central and Southern Chili in all suitable localities, but is much more plentiful in the south. It is also common on Chiloe, and probably right down to the Straits of Magellan. It is called "Piden" throughout Central Chili and also in the southern provinces, but in the latter is better known as "Gallereta." It appeared to be a resident in all these districts.

The iris is of a dark crimson colour. In the living bird the bill is coloured at the base above Sevrès blue, and beneath vermilion, the rest of it being oil-green. The legs and feet are geranium-pink, deeper on the fronts; the claws black.

This Rail is always to be found in swampy ground, where there is abundance of sedge or rushes.

I noticed a good many on the flats near the mouth of the

Maquegua River in Arauco, these localities being flooded by the tide at high water. Owing to its retiring habits it is not often seen, but may be frequently heard, especially when night approaches. The cry is loud and remarkable; I never, to my knowledge, heard the cry of the Water-Rail at home, so I do not know if that is like it. It commences with a deep rumbling sound ascending to a whistling shriek; this extraordinary sound is repeated two or three times, and the deep rumbling gradually dies away. When I first heard it I was probably within ten yards of the bird, and thought the noise was made by some amphibious mammal, such as an otter, until I was assured by a native that it was produced by a bird. When I went down to Arauco I heard these Rails often enough, sometimes dozens of them together, making a noise that was audible a long way off.

I also obtained at Pica a peculiar small variety of this Rail. It was, so far as I could ascertain, of the same colour in every respect and had the same cry, the only difference apparent being the size.

These Rails occurred in limited numbers in reeds or bushes by the water-courses at Pica; but the covert was so thick I do not believe even a good dog could drive them into view; I was lucky in getting even one specimen, although I was continually watching during my limited stay.

94. PORPHYRIOPS MELANOPS (Vieill.).

Porphyriops melanops, Sharpe, B. M. C. xxiii. p. 182.

I heard of this species only about Valdivia, where it occurs in the dense thicket which generally covers the banks of the rivers running through forest districts. It is perhaps not uncommon, but it is difficult to get birds in such localities, or even to observe their habits, and I only identified this one specimen, though I thought I saw more.

† 95. GALLINULA GALEATA.

Gallinula galeata, Sharpe, B. M. C. xxiii. p. 180; *Scl. P. Z. S.* 1891, p. 136.

(Sacaya.)

This bird is by no means uncommon in the marshes of Sacaya, but is very different in its habits from the Coots.

It is locally known as the "Llagareto," and nests in rushes, sedge, &c., laying about five eggs in January or February. This Water-hen is a very hard bird to shoot, as it is a most extraordinary skulker, and on being sighted it creeps into a tuft or bush, which the gunner naturally approaches and examines cautiously, but seldom flushes the bird, though he may see it walking about a hundred yards away quite unconcernedly. In this way, even when assisted by a couple of keen-eyed natives, one of these birds has completely deluded me from spot to spot. It will be found as frequently on the drier parts of the valley as on water; but I never saw more than a pair together, nor did I find it amongst the Coots which live in colonies. It occurs up to 11,000 feet. The sexes are of the same size, and the females appear to be of the same plumage as the adult male.

96. *FULICA GIGANTEA*, Eyd. et Soul.

Fulica gigantea, Sharpe, B. M. C. xxiii. p. 219; Sci. P. Z. S. 1891, p. 136.

(Sacaya.)

I only observed this fine Coot in Tarapacá, and even there it was very local, being confined to certain pools.

There was a small piece of marsh at Sacaya in the upper part of the valley with a few acres of water and a fair amount of sedgy grass about it. On this I found a colony of *F. gigantea* and *F. ardesiaca*; but I never saw them anywhere else but in this one spot, from which they appeared never to stray. The altitude of this place was nearly 11,000 feet.

The two species, when swimming on the ponds along with ducks and other birds, usually make a considerable clamour, some of their cries being most peculiar. On the ponds they occupied I observed about six nests, some of which were composed of materials enough to fill a horse-cart, the part above water being about 3 feet in diameter. I swam, or rather floated myself, over a layer of dirty black mud (which I found was covered only by about twelve inches of clear water and too deep and sticky to wade through) to visit these nests, but found no eggs, only broken shells. This was in January but later on I got an Indian to go to a nest which

was easier to reach, and obtained some eggs. I went to the spot again in March, thinking I saw eggs, but obtained none: however, later in April I found eggs containing young birds; these, I think, belonged to *F. ardesiaca*.

97. *FULICA ARDESIACA*, Tsch.

Fulica ardesiaca, Sharpe, B. M. C. xxiii. p. 217.

(Sacaya.)

This species measures about 16 inches long, bill to rictus 1.5; tail 3, containing two middle rectrices and five lateral on each side. The bill is sulphur-yellow, with a patch of hazel on the top of the culmen and continued up to the shield on the forehead. The legs and feet are oil-green, shading into sage-green in parts; the claws greenish-drab. Both this species and the preceding are termed "Machorita" by the Indian, from some fancied resemblance to the Llama, which they call the "Machora."

98. *FULICA LEUCOPTERA**.

Fulica leucoptera, Sharpe, B. M. C. xxiii. p. 224.

(Sacaya.)

The common Chilean Coot is known everywhere as the "Tagua," and occurs on all the lagunas and marshes throughout the central and southern provinces; it builds floating nests, and lays from five to eight eggs. The length of an adult is about 15 inches; bill (point to rictus) 1.3, (to top of shield) 1.75; tail 2.375, containing two middle rectrices and five on each side; wing 7.25; tarsus 2.375. The legs and feet are light olive-green, dark at the joints, with a touch of coral-red round the tibiae. The bill and shield are canary-yellow, with a patch of coral-red at the margin on the culmen.

99. *BELONOPTERUS CHILENSIS*.

Belonopterus chilensis, Sharpe, B. M. C. xxiv. p. 165.

(San Pedro and San Antonio.)

This Plover is common all through Central and Southern Chili, and its noisy and discordant screeching may be heard by anyone traversing flat or marshy ground. It is known in the central provinces as the "Queltregüe," and in the south

* [Besides these three species Mr. Lane obtained examples of *Fulica armillata* in Tarapacá. See B. M. C. xxiii. p. 219.—P. L. S.]

and Chiloe as the "Fraile." It is very similar to *V. vulgaris* in its nesting-habits, I was told, and lays four eggs of similar description.

100. *PTILOSCELIS RESPLENDENS*.

Vanellus resplendens, Sclater, P. Z. S. 1891, p. 136.

Ptiloscelis resplendens, Sharpe, B. M. C. xxiv. p. 137.

(Sacaya and Sitani.)

I met this Plover only in Tarapacá, where it occurs at Huasco, Sacaya, and Cancosa, and is called by the Indians "Lequi-lequi." It closely resembles the former in its habits, and utters similar discordant cries when approached. I observed it from 8,000 to 12,000 feet, where it appeared to be resident. I was told that it nests on the open ground about December, laying four eggs.

101. *ÆGIALITIS OCCIDENTALIS*, Cab.

Ægialitis occidentalis, Sclater, P. Z. S. 1886, p. 493, 1891, p. 137; Sharpe, B. M. C. xxiv. p. 295.

(Sacaya and Laraqueti.)

This handsome little Plover occurs in the Andes in wet salt-marshes, such as Huasco, where it is fairly numerous, and also at Cancosa. At Sacaya a few were found on the small stretch of brackish laguna in the upper part of the valley. The Indians there called it "Platerito." I observed it up to 11,000 feet, and it remained in the localities above mentioned up to the time I left.

A female which I measured was 6.5 inches long, bill to rictus .75, tail 1.75, wing 5.5, tarsus 1, middle toe and claw .75. Bill, legs, and feet black.

Iris dark brown.

102. *EUDROMIAS MODESTA* (Licht.).

Zonibyx modesta, Sharpe, B. M. C. xxiv. p. 238.

Observed in flocks or small groups on the beach near Arauco, in August.

+103. *HÆMATOPUS FRAZARI*, Brewster.

Hæmatopus frazari, Sharpe, B. M. C. xxiv. p. 117.

Hæmatopus palliatus, James, New List, p. 194.

(Arauco.)

I met with this species of Oyster-catcher, which is called

the "Pipilen" from its cry, only on the beach in Arauco in August. A male measured 17·25 inches; bill (to rictus) 3·5; tail 4·5, containing two middle rectrices and five lateral on each side; wing 9·5; tarsus 2, middle toe 1·5 (with claw), hind toe absent. Feet partially webbed.

Bill poppy-red at the base, merging into carmine, which assumes a bright transparent yellowish hue at the tip. Iris deep orange; cere poppy-red. Legs and feet flesh-colour, claws black.

104. *THINOCORUS RUMICIVORUS*, Esch.

Thinocorus rumicivorus, Sharpe, B. M. C. xxiv. p. 719; *Sci. P. Z. S.* 1891, p. 137.

This is one of the few species to be met with on the deserts of Tarapacá and in the similar parts of Northern Chili. It is indeed the only bird I observed in those sterile regions far from water and cultivation, though certain Musisaxicoline species appear now and then about the corrals and heaps of débris near habitations. In Tarapacá I found it occasionally from the sea-shore to within a short distance of Pica, and it perhaps ranges higher. It is, I was told, far more plentiful further south, especially about Huasco and Coquimbo; at the former place I was told it could be shot wholesale near the water-springs at certain hours. I could not make out much about these birds whilst in Tarapacá, as I found them very scarce, and nobody seemed to know much of them; but I had more experience of them later, which leads me to believe that they all probably visit water, and most likely grassy glades, somewhere in the neighbourhood that they inhabit, at certain intervals, even though they pass most of their time on the desert or bare sand.

They are called in the north "Perdicita" (= Little Partridge) or "Echadero" (from the reflective Spanish verb *echarse*, to stretch one's self at full length), from their habit of lying flat on the sand in some slight hollow on the approach of an intruder. Once or twice on the few occasions that I met with them in Tarapacá we dismounted and walked to where they were running when we last saw them (though I never

could mark them down with accuracy on the glaring sand which they so closely resemble), but after walking carefully and making close scrutiny we could find no further trace of them. I found small flocks of them subsequently on the wide beach extending from Laraqueti to Arauco; this was in August, and I was told that they occurred there only at that season. The natives had no regular name for them, calling them "Pollos (chickens) del mar," which name they also apply to the Plovers and other small Limicoline species. I did not hear of their occurrence further south.

The sexes are not quite similar in size, the female being a little smaller: she has also a more finely shaped head and gullet, and does not obtain the peculiar black marks on the throat and jugulum which distinguish the adult male, unless very slightly. The latter measures 5 inches long; bill (point to rictus) $\cdot 5$; tail $2\cdot 5$, containing two middle rectrices and five lateral on each side; wing $4\cdot 5$; tarsus $\cdot 675$, middle and hind toes $\cdot 675$ and $\cdot 125$ respectively. Bill saffron-yellow at the base, tipped with black. Legs and feet saffron-yellow, claws black.

On taking wing these birds utter a wheezing screech, much like that of a Snipe. When feeding they utter bubbling or cooing sounds, such as might be heard from Pigeons. Their flight is decidedly Snipe-like, from the similar structure of the wings.

I picked up, or rather captured, one of these birds which I had wounded out of a flock near Laraqueti in August 1890; the extremity of the radius in one wing was fractured, but as it did not appear much the worse I soon cured it by a small operation and kept it in a box, partly open and wired on one side, in order to study its habits. As it was moulting at the time it fell into such a low condition that it nearly died, but on being liberated now and then for ten minutes or so in a field it recovered. I brought it at first on to the beach, to try and find out its food on the bare sand; but though I saw it peck I never could tell exactly what it pecked at. In a garden or field it ate grass and various weeds with voracity, but I had to watch it carefully as it ran very fast, and always

tried to hide by flattening itself down in some hollow. In this way I nearly lost it once or twice, and often was near treading on it. I accustomed it by degrees to eat bread and canary-seed, but it did not take to the latter for some time. Before leaving Maquegua for good, I kept it for about a week in a pit in a garden. During this time I generally brought it in at night, and it remained quiet all day as it could not get out, and fortunately was not stolen; whilst as it had a good run and a plentiful supply of food, it thrived exceedingly well. It was never apparently wild or frightened, even when first caged, though it constantly pecked and hammered with its bill as if to get out. It continued this habit more or less and never got much tamer, nor would it feed from hand. However, it proved so interesting and was so easily kept that I brought it with me on moving south, and it went through a more marvellous amount of travelling than I should think ever came to the lot of a bird before. Though it got on well enough on the steamers, its occasional position on the jolting bullock-waggon was, I fear, unenviable; and, finally, I found it advisable to carry it in a little box in my saddle-bag to Rio Bueno; but even this did not affect it, and it continued to flourish until I foolishly trusted it in a cage with a specimen of *Glaucidium nanum*, which appeared too small to be offensive. But the Owl ate the head off the Quail-Snipe, after I had kept it safe for six months.

105. *THINOCORUS ORBIGNYANUS*, Geoffr. et Less.

Thinocorus orbignyianus, Sharpe, B. M. C. xxiv. p. 718; Scl. P. Z. S. 1891, p. 137.

(Sacaya, Cancosa, and Lake Huasco.)

These birds were plentiful about Sacaya, especially on grassy slopes near water, in which I have even seen them paddle. They occurred also at Huasco and Cancosa, and at all the springs in Tarapacá giving rise to verdure. The Bolivians call this bird "Puca-puca," probably from its gurgling or Snipe-like notes, which are similar in most respects—as are the general appearance and behaviour of this bird—to those of the

former species (*T. rumicivorus*). It also has the same habit of flattening itself on the sand to escape observation. It is larger than *T. rumicivorus*, an adult male measuring 8·25 inches long, bill ·675, tail 2·5, wing 5·5, tarsus ·875. The bill is deep chrome at the base, shading to broccoli-brown at the point. Legs and feet deep chrome, claws black. These birds become more voluble at times, especially at night, when their peculiar gobbling cry is frequently audible and somewhat like the drumming of a Snipe. They are usually met in small flocks, except when in the breeding-season, which is at its height during January and February. At Sacaya the nest is a mere hollow in the sand, with a few fragments of twigs or grass around. The eggs are four in number. These birds are mostly graminivorous in their feeding.

They occur generally on the Andes of North Chili as far as the peaks adjacent to Santiago, extending both sides from 8,000 to 14,000 feet, but south of this I got no authentic report of them.

106. *ATTAGIS GAYI*, St.-Hil. et Less.

Attagis gayi, Sharpe, B. M. C. xxiv. p. 715; Scl. P. Z. S. 1891, p. 137.

(Sacaya.)

Of this species I learned but little; it is called "Perdiz (Partridge) de la Cordilla," occurring, so far as I could ascertain, only on the elevated solitudes of the Andes from 5,000 to 12,000 feet.

Guided by an Indian, I sought it several times, but only once came on a flock or covey of about half a dozen near Sacaya, out of which I got the specimen sent. This was a female 12·25 inches in length, bill (point to rictus) ·875, tail 3·5, wing 7·125, tarsus 1·125; hind toe absent. The iris was cinnamon.

I was told that these birds lay five or six eggs of a deep purple colour, and that they are resident in flocks of from about six to ten, each flock frequenting one special locality, generally the head of some remote valley, where they are little disturbed.

They occur on the Andes adjacent to Santiago, but I did not hear of their existence further south.

107. *RECURVIROSTRA ANDINA*, Phil. et Landb.

Recurvirostra andina, Sharpe, B. M. C. xxiv. p. 334; *Sci. P. Z. S.* 1891, p. 137.

(Lake Huasco and Sacaya.)

This bird, so far as I could ascertain, is peculiar to the salt-marshes of the Bolivian Andes, at an elevation of from 8,000 to 12,000 feet. It was plentiful about Huasco, and a few occurred at Sacaya in one spot, which was a stretch of saltish sediment with from two to nine inches of water on it, but it never resorts to swamps or grassy slopes.

The sexes are similar in appearance, the female being, if anything, a trifle larger than the male. The latter is about 18 inches long, bill 3 (base to tip), tail 4. It has two middle rectrices, and five lateral each side. Wing 9.5 inches, tarsus 3.5, middle and hind toes 1.5 and .25 inch respectively; the latter is elevated about .375 inch. The feet are half-webbed; the legs and feet are lavender-grey; claws and bill black. The iris is scarlet.

The plumage is thick and well adapted to the rigorous cold of the Andes. The flesh is a deep red, and rank-looking, like that of the Flamingo and other birds which feed in the salt-marshes.

These Avocets appear to be residents where they occur, and I should say are strictly local. I was informed that they nest about November, on the shores of the water they frequent, laying four or five eggs. There are three chicks mounted in the Santiago Museum and two adult specimens. In the former the bills were, I think, straight or very slightly curved; they are of a light brown or drab plumage, with black spots or patches.

These birds are usually seen wading in the shallow lagunas, either singly or in small groups; when the latter is the case they usually are all facing in the same direction, and if they move they go forward. Keeping the same front, they make rapid peeks at the surface of the water in a diagonal

manner, appearing to skim something off the surface with their long slender bills; this seemed to be their only method of feeding, if such it was. At the same time their peculiar cry may be frequently heard. This cry is like that of a three-quarter-grown duckling, and might be expressed by the syllable *weng* pronounced with a shrill nasal accent, and is something like the note of the Ibis.

When disturbed they utter this note successively and sometimes rapidly, taking wing if a person approaches. The flight is steady and performed with rapid strokes of the wings, their long legs being kept straight back, so that the feet protrude beyond the tail.

The Bolivians call this bird the "Quaiti." The first specimen I fired at, at Huasco, continued its flight in an undisturbed manner, alighting about 300 or 400 yards away; when I got up to it I found it was quite dead, though I had not noticed it to waver.

108. GALLINAGO PARAGUAIÆ (Vieill.).

Gallinago paraguaiæ, Sharpe, B. M. C. xxiv. p. 650; *Sci. P. Z. S.* 1891, p. 137.

(Sacaya and Rio Bueno.)

This Snipe is fairly numerous in Chili, increasing in numbers as one goes south.

The average measurement of the males I shot was:—Length 11·25 inches; bill 2·75; tail 2·5, containing two middle rectrices and six lateral each side; wing 5·125; tarsus 1·25 inch; middle and hind toes 1·25 and ·25 (including claws), the latter elevated about ·375 inch. Iris dark brown; legs and feet a yellowish sage-green; claws blackish.

This Snipe was fairly numerous about Concepcion and thence to Arauco on the flat swamps by the sea from June to end of July; but by the middle of August it would have been hard to find one there. The birds were very numerous about the Rio Bueno and Rio Pilmaiguen, where they must breed. They are called "Avccasino" in Arauco, but about Rio Bueno they are best known by an Indian name "Quai-quailen," (pronounced ki-ki-l'yen). They feed rather on open mudbanks or such-like places than in grass or sedge.

109. GALLINAGO STRICKLANDI, Gray.

Gallinago stricklandi, Sharpe, B. M. C. xxiv. p. 660.

I saw what I believe was this large Snipe at Huasco whilst stalking some Flamingoes; but as it appeared plentiful I did not fire at the time, because I should have lost my chance of getting near the latter, and subsequently I was so much occupied in procuring the various new birds with which I was surrounded that I forgot it. A nest and two eggs, which I believe belong to this Snipe, were brought to me at Sacaya during the first days I spent there. The nest consisted of grass. I got more of the eggs from the Indians, but at the time was ignorant as to the species to which they belonged, and did not understand the natives so well as later on; but afterwards I found out that the "Saje-saje grande" was the bird in question, as I subsequently shot the "Saje-saje-chica" (*Gallinago paraguaiæ*).

110. RHYNCHÆA SEMICOLLARIS (Vieill.).

Rostratula semicollaris, Sharpe, B. M. C. xxiv. p. 690. (Arauco.).

I procured a limited number of these handsome birds just before I left Arauco. They appeared to be in pairs and I flushed them from watery sedge near the sea-shore whilst looking for Snipe.

The female is slightly larger than the male, and the markings and white spots on back and wings appear more distinct, but little difference is observed on a casual inspection.

A female of a pair shot in the end of August had highly-developed ova, which looked as if they had come to breed in that locality. The legs evidently dangle during their somewhat low flight, as nearly all the specimens shot were more or less shattered in this respect.

† 111. TRINGA MACULATA, Vieill.

Heteropygia maculata, Sharpe, B. M. C. xxiv. p. 562; *Sci. P. Z. S.* 1891, p. 137.

I shot a specimen of this Wader near the river Pilmaiguen towards the close of February. It measured 8·5 inches long; bill 1·15, tawny olive at the base, shading darker, the outer

half being black; tail 2·5, wing 5·75, tarsus 1·5. The legs and feet were dark gallstone-yellow. I have no details by me of the larger *Tringa* which I got at Sacaya (Tarapacá), but this seemed to be similar*.

+112. *TRINGA BAIRDI*, Coues.

Tringa bairdi, Sci. P. Z. S. 1891, p. 137.

Heteropygia bairdi, Sharpe, B. M. C. xxiv. p. 570.

(Cancosa, Sacaya, and Lake Huasco.)

This species was plentiful at Huasco, Sacaya, and other places in Tarapacá until the end of March. Length 6·5 inches, bill ·9, tail 2·25, wing 4·5, tarsus ·75; bill, legs, feet, and eyes black.

The note is a soft whistling trill, uttered when the bird takes wing. The habits are similar to those of the common Sanderling.

+113. *TOTANUS MELANOLEUCUS* (Gm.).

Totanus melanoleucus, Sharpe, B. M. C. xxiv. p. 426.

I got a specimen of this species in the south near the river Pilmaiguen, in the middle of February. This bird, which was a male, measured 14 inches long; bill (to rictus) 2·35; tail 3·5, containing two middle rectrices and five lateral each side; wing 7·35; tarsus 2·8. Eye black; legs and feet deep chrome-yellow; claws black. Its local name is *Serapita*=*Zarapito*.

+114. *TOTANUS FLAVIPES* (Gm.).

Totanus flavipes, Sharpe, B. M. C. xxiv. p. 431; Sci. P. Z. S. 1891, p. 137.

Birds of this species are fairly plentiful at Huasco, Sacaya, and Caracosa, and other localities in Tarapacá, where they breed, probably about December. They may migrate altogether during the winter season, at least some do. They are known there as the "Chiuli-chiuli," which name is probably derived from the note of the bird, which is frequently heard.

They resort to the margins of pools and to shallow waters,

* [The larger *Tringa* of Tarapacá is also of this species. Cf. B. M. C. xxiv. p. 566.—P. L. S.]

and are peculiarly addicted to the habit (so characteristic of many Limicoline birds) of repeatedly jerking up the head and body.

†115. *NUMENIUS HUDSONICUS* (Lath.).

Numenius hudsonicus, Sharpe, B. M. C. xxiv. p. 364.

(Viña del Mar, near Valparaiso.)

This species occurs generally in flocks along the coast, migrating according to season. It is called by the natives "Perdiz del mar," or Sea-Partridge. Its habits are somewhat like those of the Common Curlew, but the whistle is not so loud.

[I find no MS. notes on three species of Gulls of which Mr. Lane obtained specimens, now in the British Museum: namely, *Larus serranus* (Huasco and Sacaya), *L. maculipennis* (Viña del Mar, Arauco, and Laraqueti), and *L. glaucoles* (Viña del Mar, Arauco, and Laraqueti). Cf. Saunders, B. M. C. vol. xxv.—P. L. S.]

†116. *PUFFINUS GRISEUS* (Gm.).

Puffinus griseus, Salvin, B. M. C. xxv. p. 386.

(Corral.)

On November 3rd, 1890, great numbers of these Petrels visited the bay at Corral, extended in a line of some miles in length. From a distance they presented a remarkable appearance, numbers being settled on the water, whilst the air above was full of them, flying in regular succession from the rear to the front of the column. On sculling out I found the line of those swimming was from a quarter to half a mile across. They were not swimming thickly together, but from one to three yards apart. I did not bag more than one to each shot I fired, as most of them were only wounded, and, as is usually the case, difficult to secure, and whilst I pursued one the rest got well away. The wounded birds, on being hauled into the boat, attacked everything most ferociously with their bills, not only biting and worrying oars and cordage, but even each other, screaming and tearing out each other's feathers wholesale, so that before I got time to kill them outright some of them had nearly plucked the others. They varied in size, a male measuring 18·5 inches long; bill

to rictus 2·625, to base of culmen 1·75; tail 4·25, containing two middle rectrices and five lateral on each side; wing 11; tarsus 2·25. Bill black; legs and feet lilac-grey on the inner parts, black on the outer.

117. *ÆCHMOPHORUS MAJOR* (Bodd.).

Æcmophorus major, Scl. et Huds. Arg. Orn. ii. p. 202.

These large Grebes were abundant in the Laguna Llanquehui, but very difficult to shoot. I noticed that they were usually to be seen in pairs, when I was there about December. They constantly uttered a plaintive whistling noise, which appeared to be their call-note. At Puerto Octay I found them very abundant, and shot five or six. Unfortunately I had not had the skins sufficiently prepared before I fell ill at Osorno, and they did not keep well. I heard that the bird was to be found at Rio Bueno, but did not meet with any while there, and subsequently did not find an opportunity of obtaining fresh specimens.

118. *PODICIPES CALIPAREUS*, LESSON.

Podiceps caliparæus, Scl. P. Z. S. 1891, p. 137.

(Lake Huasco.)

This species is, I believe, widely distributed, occurring throughout Central Chili and some way south, where it is known as the "Blanquillo." I got one on a pool at Huasco (10,000 feet, Tarapacá Andes), about the commencement of March 1890, and subsequently saw one dead at Sacaya, and was told by my Indian companion that he had never seen one in that valley, though it occurred annually at Huasco; he called it a "Chiullumpc." How such birds get to these localities is, indeed, extraordinary, as they appear almost incapable of flight. I cannot imagine that any bird of this species could fly 20 or 30 miles, which they must do at least to reach Huasco.

119. *PODICIPES ROLLANDI*, Q. et G.

Podiceps rollandi, Scl. et Huds. Arg. Orn. ii. p. 204.

(Llanquehui and Rio Bueno.)

I saw these Grebes in flocks of from three to twelve in the Laguna, and shot a good many at Frutillar. I also got

some on the Rio Conta. Most of the former appeared to be young birds, and were of a darker colouring and immature.

120. *PODILYMBUS ANTARCTICUS* (Less.).

(Llanquehui and Rio Bueno.)

I met with this species first at Frutillar by the Laguna Llanquehui, where I secured a couple. It was not so plentiful as the large and small species of true Grebe. I subsequently got one where the Rio Conta joins the Rio Bueno, but the bird did not appear to be plentiful in these rivers.

121. *SPHENISCUS MAGELLANICUS* (Forster).

(Corral.)

This Penguin is numerous all about the southern coasts of Chili and neighbouring archipelagoes. In the islands of some of the latter and in Tierra del Fuego I was told that it bred in large quantities. There were a good many about Corral in summer-time, and I believe the species becomes more numerous in winter.

It is called by the natives "el Pajaro niño," which in English is "little boy bird." Some of the more educated Chilians call it "la Penguina," from the Spanish word, which is the same as the English.

These birds are usually to be seen floating on the water, and occur for some distance out at sea. When in good condition they contain such a quantity of oil that it is almost useless to try to skin them.

I usually saw from two to five of these birds in company together.

[The specimen from Corral obtained by Mr. Lane, and now in the British Museum, belongs to *S. magellanicus*, and not to *S. humboldti*, which is, I suspect, a more northern species.—P. L. S.]

122. *NOTHOPROCTA PERDICARIA* (Kittl.).

Nothoprocta perdicaria, Salvad. B. M. C. xxvii. p. 553.

(Maquegua.)

The Tinamous are generally spoken of as "Partridges" in South America, and are so called by British residents. The

universal local name is the Spanish term "Perdiz," and by this name the present species is well known throughout Central and Southern Chili. In the former it is undoubtedly aboriginal, and is more or less preserved by the land-owners; but in Arauco it is not so plentiful, as there is less cultivation, and where there is more the local gunners keep it down, and little protection is afforded it. I did not hear of it on Chiloe, but on going to Puerto Varas on the Laguna Llanquihui I found that a few resorted to the corn-fields of the German colonists. The latter told me that it was quite new to the neighbourhood, and said they wished to protect them; thus it may subsequently extend much further south. I found it extremely numerous about Rio Bueno and Osorno, which is a great wheat district; but, so far as I could learn, it had come there subsequently to the cultivation of the land, and is still spreading very rapidly. About Valdivia the "Perdiz" has scarcely appeared, but I believe there are few in that district.

The call-note of this bird is a loud whistle, or rather two whistling notes on an ascending scale uttered rapidly in succession, and is heard frequently throughout the breeding-season. When flushed it utters the most piercing cries, and flies steadily with rapid beat of the wings, alighting from 200 to 10,000 yards distant. It runs considerably before a dog, and if coppice be near is apt to get into it and skulk away, but in long wheat-stubble it lies fairly well. The nest is placed in wheat or coppice, and usually contains upwards of a dozen eggs. I did not observe more, but an old peasant at Rio Bueno assured me he had seen twenty eggs in one nest. I had various young ones (half-grown) in an outhouse at Rio Bueno which thrive fairly well on wheat, &c., with a few worms; but the rats generally killed them within a few days, and I had not time to devote to their efficient management, else I could have brought several home alive.

It nested near Llanquihui about Dec. 1st, and subsequently at Rio Bueno I got eggs up to the end of February; I fancy two clutches are produced.

123. TINAMOTIS PENTLANDI (Vig.).

Tinamotis pentlandi, Sci. P. Z. S. 1891, p. 137; Salvad. B. M. C. xxvii. p. 568.

(Sacaya and Cancosa.)

These birds are not uncommon in the Andes of Tarapacá, in the smaller valleys up to 14,000 feet, where they live principally on certain herbs or grasses, and probably on insect food as well. They are also called "Perdiz" or "Perdiz de la Cordillera."

I was told they nest at Sacaya from December to January, but I had some eggs and a female brought me on 5th April, 1890; the latter had been pounced on by an Indian's dog and was considerably mauled. They are said to lay up to a dozen eggs.

The flesh of both species of Tinamou is white and delicate, especially that of the present. These are difficult to shoot, as they resemble the sand in colour, and the want of cover makes it still harder to approach them.

The nest is merely a hollow scratched in the sand and lined with a few feathers.

124. RHEA DARWINI, Gould.

Rhea darwini, Sci. P. Z. S. 1891, p. 137; Salvad. B. M. C. xxvii. p. 582.

(Cancosa.)

In the Andes of Northern Chili this Rhea is not uncommon, but is difficult to procure. When its haunts are discovered it may be stalked and brought down with a rifle.

Its Spanish name is "Avestruz," but the Bolivian name is "Sūri." I usually saw from two to six together. I was told that they nest at the beginning of December, and lay two clutches of eggs, sometimes several miles apart. One lot, probably the first, are not hatched, and, by the time the others are, have become full of maggots, on which the young are fed during their first stage of existence. I could not find out whether the female broods, as, though the heat of the sun is sufficient by day to hatch eggs, the frost at night is severe. The two young birds sent home I bought from an Indian, and

kept alive some days while encamped. They made a plaintive whistling noise, and when turned out fed all round the hut, and returned towards dusk, when we whistled for them; they became quite tame.

XXV—*Field-Notes on the Birds of the Island of San Domingo.* By Dr. CUTHBERT CHRISTY.

At the beginning of January, 1895, I landed at the famous old city of Santo Domingo, the capital of San Domingo, and, after spending a day and a half among the picturesque ruins of old houses and fortifications and other places of interest, steamed away for Sanchez, where we arrived a day and a half later. This little town of ten years' growth (Las Cañitas of the old maps) is situated at the east end of San Domingo, at the head of Samaná Bay. It is the port and the headquarters of the Samaná and Santiago Railway Company, which runs west as far as La Vega, a distance of about 70 miles. From these two points, Sanchez and La Vega, all my collections were made. I left the island again in July, 1895, returning home *viá* New York.

The port of Sanchez stands in a very healthy situation at the foot of a densely-wooded range of hills which bounds Samaná Bay on the north, and continues along the north of the island. The south shore of the bay is a mass of honeycombed white coral rocks, forming picturesque inlets and islands densely covered with trees and matted vegetation, but singularly devoid of bird-life, except Pelicans and some of the Ardeidæ, which resort to the islands to breed.

At the head of the bay, commencing a mile or so to the west of Sanchez, is a vast morass, some 20 square miles in extent, really the delta of the river Yuna, which drains the great "Vega Real" of Columbus. In this morass the ornithologist finds a rich avifauna, and I look back with feelings of pleasure to the several excursions I made into it. It can,